2003
Urban Water Conservation Program

Grant Application for

Metropolitan Water District of Southern California

Swimming Pool Cover Rebate Project

Application Part A — Project Description, Organizational, Financial and Legal Information

A-1 Urban Water Conservation Grant Application Cover Sheet

1. Applicant**: *Metropolitan Water District of Southern California***
2. Project Title: ***Regional Pool Cover Rebate Project***

3. Person authorized to sign and submit proposal:

Name, Title: Steve Arakawa,
Manager of Water Resource Management Group

Mailing address: P.O. Box 54153
Los Angeles California, 90054-0153

Telephone (213) 217-6052

Fax (213) 217-6119
E-mail sarakawa@mwdh2o.com

4. Contact person (if different):

Name, Title: Bill McDonnell, Senior Resource Specialist

Mailing address: P.O. Box 54153
Los Angeles California, 90054-0153

Telephone (213) 217-7693

Fax (213) 217-7159

E-mail bmcdonnell@mwdh2o.com

5. Funds requested (dollar amount): $250,000
6. Applicant funds pledged (local cost share): $205,000
7. Total project costs (dollar amount): $455,000

8. Estimated net water savings (acre-feet/year): 120 AF/YR
   Estimated total amount of water to be saved (acre-feet):
   Over 7 years 840 AF

   Benefit/cost ratio of project for applicant: 1.03
   Estimated $/acre-feet of water to be saved: $542/AF

9. Project life (month/year to month/year): 10/03 to 10/06
10. State Assembly District where the project is to be conducted: 35, 37-80
11. State Senate District where the project is to be conducted: 17,19-40

12. Congressional District(s) where the project is to be conducted: 25-53

13. County where the project is to be conducted: Los Angeles, Orange, San Diego, San Bernardino, Riverside and Ventura Counties.

14. Do the actions in this application involve physical changes in land use, or potential future changes in land use?
    (a) Yes _____
    (if yes, complete the land use check list at http://www.calfed.water.ca.gov/adobe_pdf/Questionnaires_EC_Permits_LandUse.pdf and submit it with the proposal

    (b) No **X**

A-2 Application Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the application;

The individual signing the form is authorized to submit the application on behalf of the applicant;

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the application on behalf of the applicant; and

The applicant will comply with all terms and conditions identified in this Application Package if selected for funding.

ORIGINAL SIGNED BY:
STEPHEN N. ARAKAWA, MANAGER
MWD WATER RESOURCE MANAGEMENT GROUP
DATED NOV 26, 2002

_____	_____	_____
Signature	Name and title	Date

A-3 Application Checklist

Complete this checklist to confirm all sections of this application package have been completed.

Part A: Project Description, Organizational, Financial and Legal Information

X_____A-1 Urban Water Conservation Grant Application Cover Sheet
X_____A-2 Application Signature Page
X_____A-3 Application Checklist
X_____A-4 Description of project
X_____A-5 Maps
X_____A-6 Statement of work, schedule
X_____A-7 Monitoring and evaluation
X_____A-8 Qualification of applicant and cooperators
X_____A-9 Innovation
X_____A-10 Agency authority
NA_____A-11 Operation and maintenance (O&M)

Part B: Engineering and Hydrologic Feasibility (construction projects only)

NA_____B-1 Certification statement
NA_____B-2 Project reports and previous studies
NA_____B-3 Preliminary project plans and specifications
NA_____B-4 Construction inspection plan

Part C: Plan for Environmental Documentation and Permitting

X_____C-1 CEQA/NEPA
NA_____C-2 Permits, easements, licenses, acquisitions, and certifications
NA_____C-3 Local land use plans
NA_____C-4 Applicable legal requirements

Part D: Need for Project and Community Involvement

X_____D-1 Need for project
X_____D-2 Outreach, community involvement, support, opposition

Part E: Water Use Efficiency Improvements and Other Benefits

X_____E-1 Water use efficiency improvements
X_____E-2 Other project benefits

Part F: Economic Justification, Benefits to Costs Analysis

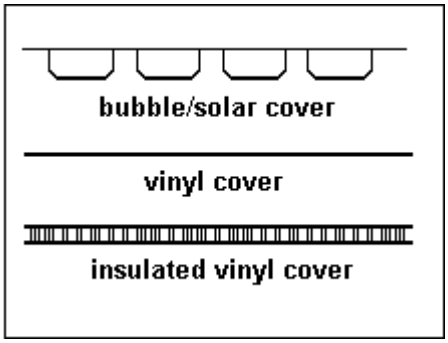
X_____F-1 Net water savings
X_____F-2 Project budget and budget justification
X_____F-3 Economic efficiency

Appendix: Benefit/Cost Analysis Tables

X_____Tables 1; 2; 3; 4a, 4b, 4c, 4d; and 5

A-4 Description of Project

This project will rebate 5,000 residential swimming pool covers over a period of three years beginning in October of 2003 or when contracts with the Department of Water Resources (DWR) are signed. MWD will offer a $75 rebate ($50 requested from DWR and $25 co-funded by MWD) to its member agencies through its Conservation Credits Program. Metropolitan and its member agencies will also contribute funding for project administration and marketing. Rebates will be for bubble, vinyl, or insulted vinyl covers (see picture below) that are a minimum of 12 millimeters in thickness and pools that are a minimum of 15'x30' in size (can be trimmed to fit alternative sizes and shapes).



These covers cost approximately $75 without a manual reel system ($120). The rebate will cover the entire cost of an average priced cover ***leaving no additional funds required by the customer unless they purchase a reel system***. Our goal is to dramatically increase the use of thick, long lasting, high-quality pool covers. Also, according to pool industry experts, a reel system is rarely purchased when customers buy a pool cover. We are hoping that with the rebate covering the pool cover cost that more pool owners will purchase a reel system that allows for easier use of the cover. However, a reel system is not required to use the cover and is not included in the overall cost of the project.

There are also automatic "safety" pool covers on the market that also reduce evaporation. However, these automatic covers cost a few thousand dollars and any rebate for them it is speculated would only include free riders, so automatic covers are not part of this project.

MWD will produce point of purchase materials and other educational materials to be distributed through pool supply companies throughout MWD's service territory. Member agencies will implement this project along with their portfolio of other residential programs (ultra-low-flush toilets, high efficiency washing machines, audits etc.). Member agencies will have the option to co-fund higher incentives or increased marketing efforts as they currently do now for their other MWD residential programs.

Metropolitan's goal is 5,000 pool covers rebated on over a three-year period. This represents approximately 1% of all the single-family residential pools in our service area. This is based on a low estimate of 477,000 residential pools in MWD's service area (15% penetration from AWWA Residential End Use Water Study, same study has high estimate 1.7 million pools, 54.5% penetration). Local pool suppliers state that they sell only a "couple" of pool covers per week. In that light, the goal of the project is substantial as a market transformation is necessary. Customers and retailers will be educated on the numerous advantages of pool covers and then given the tool (rebates) to help transform the market.

Even though according to the AWWA REUWS, homes with pools use twice the amount of outdoor water as homes without pools, it is an under addressed market. There have been few programs offering customers with pools tangible "ways to save". Pool covers are a solution to that problem.

Metropolitan's Integrated Resource Plan (IRP) projects annual increases of 41,000 single-family residential homes each year. Since most of the housing growth is occurring inland in the hotter climate the percentage of new pools is expected to increase at an even greater proportion. According to the Department of Water Resources (Simon Eching), pool evaporation is 10% higher than reference evapotranspiration (Et). In southern California with Et ranging from 46 inches to 68 inches, swimming pool water evaporation will vary from a low of 16,148 to a high of 23,872 gallons per year. This is based on an average size pool of 16x32 (AWWA REUWS). By installing a low cost pool cover, homeowners can save from 4,844 to 7,161 gallons per year, a 30% reduction in evaporation (Department of Energy, Reduce Swimming Pool Energy Costs). For this application and project the Department of Water Resources calculation for water savings will be used. An evaporation rate of 56 inches per year plus 10% was selected. This average evaporation rate is the evaporation rate for the Monrovia California Irrigation Management Information System (CIMIS) station which is a mid-Los Angeles basin area.

An additional benefit of this pool cover program is that the savings will be realized during summer peak demand periods when the highest evaporation occurs. Also, in many cases the water saved is heated water so there are significant energy savings as well.

The total estimated cost for the project including Metropolitan and member agency contributions for rebates, marketing, and administration is $455,000.

The total request from DWR is $250,000 ($50 for 5,000 rebates).

The total lifetime (7 years) water savings are estimated to be 840 acre-feet (AF) at 56 inches Et plus 10%.

A-6 Statement of Work, Schedule

Task	Deliverable	Start Date	End Date	Projected Costs
Administration: Negotiate Contract with DWR	▪ Signed Contract	6/1/03	10/1/03	N/A
Administration: Establish Letters of Agreement with Member Agencies (amend existing contracts)	▪ Letters of Agreement with Water Agencies	10/1/03	2/01/04	MWD $5,000
Administration: MWD Project Management	▪ Daily contact by phone, email or fax with member agencies	On Going	On Going	$35,000 MWD
Administration: MWD Develops Point of Purchase and other Marketing Materials for Pool Supply Companies for all participating member and retail agencies	▪ Point of Purchase Displays ▪ Additional Educational Materials	10/1/03	2/1/04	$25,000 MWD
Administration: Member Agency Workshop on Pool Cover Technology, Savings, Rebate	▪ Workshops Held	1/1/04	3/1/04	$5,000 MWD

Amount and Available Marketing Support				
Equipment: Agencies/MWD Begin Pool Cover Rebate Program Including Marketing	▪ 5,000 Rebates Distributed	2/1/04	6/30/06	DWR - $250,000 MWD- $125,000 Total - $375,000
Other: Metropolitan performs monitoring	▪ 200 inspections	5/1/04	6/1/06	$5,000 MWD
Administration: Agencies Report Production and Invoice MWD and MWD Pays Agencies	▪ Reports/Invoices Submitted and Paid	Monthly	Monthly	$2,500 MWD
Administration: MWD Generates Final Report to DWR	▪ Final Report Submitted	6/30/06	10/1/06	$2,500 MWD

A-7 Monitoring and Evaluation

The monitoring of the pool cover rebate project will be conducted as thoroughly as the hundreds of other MWD conservation programs have been for the past ten years. Contracts between MWD and each participating member agency will be required and within each contract are specific inspection and reporting requirements. In addition to the inspections being performed by the participating member agencies, MWD has under contract an independent inspection firm who will randomly perform inspections on the pool cover rebate program.

The program manager and MWD management before being entered into the billing system review all invoices. MWD's audit department also performs random audits of MWD's conservation programs.

MWD staff maintains a close working relationship with its member agencies. MWD staff communicates daily with participating member agencies via phone-calls, e-mail and faxes. MWD also holds monthly conservation coordinator meetings with its member agencies and at those meetings programmatic information is exchanged between all parties.

MWD will submit quarterly reports to DWR, which will be the basis for invoicing DWR. The reports will show the number of rebates issued, the percent of project completed, total funds expended to date broken down between DWR and local share, and a description of activities performed during each quarter. MWD will also provide DWR with annual reports.

A-8 Qualifications of the Applicant and Cooperators

William P. McDonnell
15837 High Knoll Ave. #95
Chino Hills, CA 91709
Work (213) 217-7693/ Home (909) 238-4853

HIGHLIGHTS

- 20 years of management experience in electric, gas and water utilities
- Master of Business Administration, University of La Verne, 1995
- Public Works Commission, City of Chino Hills (1997-present)

PROFESSIONAL EXPERIENCE

SENIOR RESOURCE SPECIALIST - *Metropolitan Water District of Southern California (4/96 – present)*
Managed an $11 million annual residential conservation credits rebate program and directed over 100-member agency agreements worth over $50 million. Currently manage a regional $7 million commercial/Industrial/Institutional (CII) conservation credits rebate program through a partnership with the United States Bureau of Reclamation (USBR) and Metropolitan member agencies. Also manage the large industrial customer incentive program and the Innovative Conservation Program (ICP), which provides grants for new water efficient technologies.

EFFICIENCY PROGRAMS MANAGER - *City of Anaheim, Public Utilities Department (3/93 – 4/96)*
Managed a $1.5 million annual budget, directed a seven person staff, implemented 20 water and electric demand side management (DSM) programs resulting in 1,000 acre feet of water savings and 11 megawatts of on-peak energy reductions annually. Prepare program presentations for Public Utilities Board and City Council meetings.

CONSERVATION PROGRAM SPECIALIST - *Pasadena Water and Power Department (7/90 - 3/93)*
Managed three engineers who designed and implemented a variety of Demand Side Management (DSM) programs including industrial water processes, thermal energy storage, electric heat pumps, HVAC and lighting. Initiated a Tri-Cities conservation consortium with the cities of Glendale and Burbank to leverage funds and share information for the purpose of better serving our customers.

MANAGEMENT CONSULTANT – *Honeywell DMC Services (9/81 – 7/90)*
I worked with a number of electric, gas and water utilities, along with local and state agencies. The first three of those years I was working in Massachusetts, so for brevity, I have excluded them here. Brief explanations of the projects are as follows:

EXECUTIVE DIRECTOR - *Southern California Edison (10/88 - 7/90)*
Served as Executive Director for the ***Heat Pump Council of Southern California.***
Directed a 120-member council comprised of utilities, HVAC manufactures and contractors.

RATE SPECIALIST - *Southern California Edison (10/88 - 7/90)*
Managed Time-of-Use and Domestic Seasonal rates.

PROGRAM MANAGER - (9/86 - 10/88)

Monterey County Water Conservation Program
Managed a staff 35. Worked with Monterey Peninsula Water Management District to implement a direct installation water conservation program.

City of San Jose Water Conservation Program
Directed a staff of 24. Worked with the San Jose Office of Environmental Management to implement a direct installation water conservation program.

Southern California Edison Load Management Program
Supervised a staff of 12. Field-tested a random sample of the over 100,000 air conditioner load control devices on commercial and residential units for signal reception.

SUPERVISOR - ***(9/84 - 9/86)***

Southern California Gas Company's Weatherization, Finance and Credits Program
Supervised a staff of 65 implementing a weatherization and building envelope repair program.

City of Santa Monica Energy Fitness Program
Supervised 25 employees for a direct installation energy and water conservation program.

EDUCATIONAL BACKGROUND

MASTER OF BUSINESS ADMINISTRATION - *UNIVERSITY OF LA VERNE, La Verne, California (1995)*

BACHELOR OF ARTS IN BUSINESS – *UNIVERSITY OF MASSACHUSETTS, Amherst, Massachusetts* (*1980)*

PROFESSIONAL CERTIFICATIONS and ASSOCIATIONS

- Chino Hills Public Works Commissioner (7 years)
- American Society of Mechanical Engineers (ASME)
- American Water Works Association (AWWA)
- California Urban Water Conservation Council (CUWCC)

REFERENCES AVAILABLE ON REQUEST

A-9 Innovation

The innovative aspect of this project is not in the technology (pool covers) but in the fact that pools evaporate thousands of gallons of water a year, there are thousands of pools in southern California and this is the first large-scale project addressing the situation. Pool covers have been available for years but residential pool owners are unaware of how much water evaporates from their pool each day and how easy it would be to reduce that evaporation thereby saving water, chemicals, natural gas (if heated) and of course money.

As pools have been and continue to be popular in all areas of California and no part of the state is immune from evaporation, this project could assist water agencies throughout the State.

A-10 Agency Authority

1. **Does the applicant (official signing A-2, Application Signature Page) have the legal authority to submit an application and to enter into a funding contract with the State? Provide documentation such as an agency board resolution or other evidence of authority.**

   Yes. MWD's Administrative Code (§ 8115), as last amended by MWD's Board of Director's by Minute Order 44582 (August 20, 2001), provides that "[i]f the amount payable or expected to be paid by the [Metropolitan Water] District under the terms of a contract is less than $250,000, the contract my be executed by the Chief Executive Officer unless otherwise directed by the Board." (MWD Admin. Code § 8115 (c).) Because Metropolitan will not be required to make payments of $250,000 or more under the terms of a funding contract with the State, Metropolitan's Chief Executive Officer or his delegate are authorized to submit this application and to enter into the funding contract.

2. **What is the legal authority under which the applicant was formed and is authorized to operate?**

   Metropolitan is a quasi-municipal corporation created in 1929 pursuant to the Metropolitan Water District Act. (Stats. 1927, ch. 429; City of Pasadena v. Chamberlain (1928) 204 Cal. 653, 663); Metro. Water Dist. v. County of Riverside (1943) 21 Cal.2d 640, 642.) Operating under the authority of the Metropolitan Water District Act (Stats. 1969, ch. 209, as amended; Water Code App. §109), Metropolitan's primary responsibility is to acquire and develop water for delivery for municipal and domestic uses within Metropolitan's service area. (See Water Code App. § 109-25.)

3. **Is the applicant required to hold an election before entering into a funding contract with the State?**

   No. See the Response to 1, above. No action by Metropolitan's Board of Directors is required for Metropolitan's Chief Executive Office or his delegate to enter into a funding contract with the State.

4. **Will the funding agreement between the applicant and the State be subject to review and/or approval by other government agencies? If yes, identify all such agencies (e.g. Local Area Formation Commission, local governments, U.S. Forest Service, California Coastal Commission, California Department of Health Services, etc.).**

   No.

5. **Is there any pending litigation that may impact the financial condition of the applicant, the operation of the water facilities, or its ability to complete the proposed project? If none is pending, so state.**

   No. While Metropolitan is a party to various legal proceedings, Metropolitan does not believe an adverse ruling in any pending litigation would substantially impact Metropolitan's financial conditions or materially impair the operation of Metropolitan's water facilities or its ability to complete the proposed project. However, in the interest of full disclosure, the following three cases are noted.

   In February 2001, a case entitled Dewayne Cargill et al. v. Metropolitan Water District of Southern California et al. (Los Angeles Superior Court No. BC 191881) was filed against Metropolitan. This case is a class action lawsuit brought by various categories of temporary workers and certain temporary agencies, claiming that Metropolitan misclassified them to avoid providing them the same rights and benefits given to regular employees. In the first phase of the case, the trial court ruled for the plaintiffs. Metropolitan appealed the ruling to the California Court of Appeal, which upheld the lower court ruling in favor of the plaintiffs. The California Supreme Court granted Metropolitan's petition for review. Oral argument is expected in late 2002 or early 2003. The outcome of this litigation is uncertain; a result adverse to Metropolitan could have an adverse effect on Metropolitan's financial condition.

   In April 2000, the Soboba Band of Mission Indians filed a lawsuit against Metropolitan in Federal district court regarding the affect of a Metropolitan water tunnel on reservation groundwater. The lawsuit seeks an injunction to halt the flow of groundwater, unspecified damages, or restitution in lieu of damages. The outcome of this litigation is uncertain; a result adverse to Metropolitan could have an adverse effect on Metropolitan's financial condition and could potentially obligate Metropolitan to deliver some amount of water to the reservation.

   In September 2000, the Third District Court of Appeals issued its decision in Planning and Conservation League v. California Department of Water Resources. This case was an appeal of (i) a challenge under the California Environmental Quality Act (CEQA) of the adequacy of the environmental documentation prepared with respect to certain amendments to the State Water Contract (the "Monterey Amendments") and the selection of the proper CEQA Lead Agency and (ii) the transfer by the Department of Water Resources of the Kern County Water Bank from the State to the Kern County Water District. The appellate court agreed with the trial court that the Department of Water Resources should have been the lead agency and reversed the trial court's holding that the environmental documentation was adequate. The matter is now in confidential mediation proceedings and principles for settlement have been reached. However, if a final settlement is not reached and litigation proceeds, a final decision to invalidate all or a

portion of the provisions of the Monterey Agreement could have an adverse impact on the allocation of State Project water to Metropolitan.

Application Part B—Engineering and Hydrologic Feasibility

(Application Part B required for construction projects only, including meter installations.)

Not applicable. The proposed project does not involve construction.

Application Part C—Plan for Completion of Environmental Documentation and Permitting Requirements

C-1 CEQA

The proposed activity is not defined as a project under CEQA because it involves continuing administrative activities, such as purchases for supplies, general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed activity is not subject to CEQA because it involves other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed activity is not subject to CEQA pursuant to Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

Application Part D- Need for Project and Community Involvement

D-1 Need for the Project

<u>Need to Offset A Regional Supply and Demand Imbalance</u>.

Metropolitan is facing a significant decline in its imported water supply at the same time that population growth is increasing demand. A historic water accord was recently negotiated between Metropolitan, the Coachella Valley Water District, the Imperial Irrigation District and the San Diego County Water Authority. Assuming the accord is officially ratified, Metropolitan will have 15 years to wean itself of 750,000 acre-feet (AF) of water per year that it now draws from the Colorado River. This reduction of supply represents approximately 22 percent of current total urban demand in Metropolitan's service area (currently about 3.5 million AF/year). Concurrently, population in Metropolitan's service area is projected to grow by 4 million people between years 2000 to 2020, resulting in an increase in urban demand of approximately 1 million AF. The net result is an annual shortfall of 1.75 million AF (0.75 MAF plus 1.0 MAF) by year 2020 if nothing is done to resolve the shortfall. Also, to the extent the current drought conditions continue in southern California, the demand for supplemental landscape irrigation will rise, particularly in the normally wet winter months.

Need to increase outdoor water use efficiency and reduce summer peak

According to the American Water Works Association (AWWA) Residential End-Uses of Water Study, the penetration of residential swimming pools in selected Metropolitan areas ranged from a low of 15% to a high of 54.5%. This would equate to a low of 477,000 to a high of 1.7 million residential swimming pools in Metropolitan's service area. The difference in pool penetration rates seemed to correlate to a coastal vs. inland factor.

Information from the Department of Water Resources (Simon Eching), states that open water surface evaporation is 10% greater than reference evapotranspiration (Et). For Metropolitan's service area, reference Et ranges from 46 inches (coastal, Long Beach) to 68 inches (inland, San Bernardino). For an average size pool of 512 sqft (16x32 from AWWA Residential End Use Study) evaporation would be as low as 16,148 gallons per year to a high of 23,872 gallons per year.

According to industry experts, only a small percentage of existing residential swimming pools are utilizing covers. At an estimate of 10% of existing pools utilizing covers and using the more conservative number of 477,000 residential swimming pools and the lower annual evaporation of 16,148 gallons, total evaporation loss in Metropolitans service area from uncovered residential swimming pools is estimated to be 6.9 billion gallons or 21,224 acre-feet per year.

Metropolitan's service area is increasing each year by 41,000 (Metropolitan's Integrated Resource Plan) single-family homes. Most of the new development in Metropolitan's service area is in the eastern (hotter) region. The AWWA Residential End Use Study shows, that the penetration of pools in warmer climates can be twice what it is in cooler climates. What does all this information mean? It means that Metropolitan's retail demand will have thousands of residential swimming pools added to it each year and those pools will be in our hottest regions.

Another need for the project comes from the saturation of our existing programs. Metropolitan and its member agencies have co-funded the installation of over 2 million ULF toilets and 3 million showerheads. As Metropolitan and its member agencies reach saturation levels on these and other devices, the need for new and cost effective water efficient measures increases. Also, Metropolitan is experiencing "summer peaking capacity" problems and pools can evaporate 75% of their annual water loss in the three summer months. All these factors below demonstrate the need for the project:

- Large number of pools in our territory
- New pools added each year in hotter regions
- Untapped pool cover market
- Saturation of the residential showerhead and ULF toilet market
- Summer peaking capacity

If the project is not implemented, Metropolitan's overall and especially summer peaking demand will increase each year as homes are built in our eastern region and then pools are added. Another negative impact if the project is not implemented is the energy loss. According to the Department of Energy (Reduce Swimming Pool Energy Costs, RSPEC) evaporation is the major source of heat loss in all swimming pools. The reason evaporation has such an impact is that evaporating water requires tremendous amounts of energy. It only

takes 1 Btu to raise one pound of water 1 degree, but each pound of 80 degree water that evaporates takes 1048 Btu's of heat out of the pool. **Covering a pool can reduce heating costs of 50% -70%. Pool covers can also reduce chemical consumption by 35% - 60%.**

D-2 Outreach, Community Involvement, Support, Opposition

Metropolitan has met with and discussed this project with member agencies and their retail agencies. Both groups strongly support the project. In fact, Inland Empire Utilities Agency (Inland), which serves water to the hotter or eastern rapidly growing areas of our service territory, has undertaken on their own a small pilot pool cover rebate program. As of this writing, the program is finalized and is close to being implemented.

Metropolitan will be working closely with the California Pool and Spa Industry Education Council and the National Spa and Pool Institute to promote the program. Information required for this application was received from both of these groups who are very supportive of the project. Locally, in talking with pool supply stores, they are also supportive of the project. Inland Empire is currently working with Leslies, one of the larger pool supply chain stores, to have Inland's marketing material placed on counters in stores. The current local efforts by Inland will help pave the way for Metropolitans larger regional project.

The exact number of pool suppliers in Metropolitan's territory is not known however it is estimated to be in the hundreds. Most of these shops are small business owners that serve their local community. Also, that does not include the hundreds of residential pool maintenance and repair professionals who are mostly small independent business owners. Both of these groups will see economic benefit from the program either through the sales or installation of the covers.

As shown with the recent success of the California Urban Water Conservation Council's (CUWCC) state-wide pre-rinse spray valve program, nothing reaches small business owners, like old fashioned door-to-door canvassing. This same approach will be taken by the member and retail agencies as they go pool supply store to pool supply store explaining the program and handing out point-of-purchase materials and applications.

- ***Application Part E—Water Use Efficiency Improvements and Other Benefits***

E-1 Water Use Efficiency Improvements

Water use efficiency for this project has been calculated with a number of variables such as:

1) Number of existing residential swimming pools in our service area
2) Average size of an existing pool in our service area
3) Water loss or evaporation for pools in our service area
4) Water savings from pool covers
5) Number of rebates to be issued
6) Life of the pool cover

1) Number of existing residential swimming pools in our service area

There are 3.18 million single-family homes in MWD service area according to the MWD Integrated Resource Plan. Using the AWWARF Residential End Use Water Study (REUWS), a low of 15% pool penetration in City of San Diego and a high of 54.5% pool penetration in Las Virgenes Water District were reported. Using the low penetration of 15% multiplied by the 3.18 million single-family homes***, a total estimate of 477,000 single-family homes with swimming pools in MWD service has been calculated.***

2) Average size of an existing pool in our service area

Information on pool size was part of the AWWARF REUWS**. Average size for pools in MWD territory was reported as 16' x 32'.** This confirms similar information from the National Spa and Pool Institute and the California Spa and Pool Industry Education Council. So for purposes of this application and project an average pool size of 16' x 32' is being used.

3) Water loss or evaporation for pools in our service area

Evaporation for swimming pools is 10% higher than Et according to the Department of Water Resources (Simon Eching). Similar figures have been calculated by the California Urban Water Conservation Council (CUWCC) in their paper "Splash or Sprinkle" and the California Spa and Pool Industry Education Council, which estimate a half-inch to two inches of evaporation per week.

For this application and project the Department of Water Resource's 10% higher than Et methodology will be used to calculate pool evaporation. Monthly average Et according to the California Irrigation Management Information System (CIMIS) in Metropolitan's service area ranges from a low of 46 inches per year for coastal areas (Long Beach) to a high of 68 inches for inland areas (San Bernardino). Average Et for this application is estimated at 56 inches, which is also Et in Monrovia a central Los Angeles Basin city. **Fifty-six inches of evaporation plus 10% is approximately 19,659 gallons of evaporation per year per pool.**

4) Water savings from pool covers

The Department of Energy's "Reduce Swimming Pool Energy Cost" (RSPEC) was a program whose goal was to assist pool owners and their operators in reducing their energy costs. The program is no longer active, however, the fact sheets, studies, reports and computer software are still available. According to RSPEC, pool covers of the type this project is targeting (bubble, vinyl and vinyl insulated) reduce the amount of make-up water by 30-50%. Also, RSPEC found that pool covers reduce chemical consumption by 35-60% and heating costs by 50-70%. **For this project an average estimate of 40% savings is being used.**

5) Number of rebates to be issued

Talked to numerous pool supply stores and found that pool cover sales are slow. Approximately 2-4 covers per week are sold**. For this project an approximate 1% market penetration was used as the goal, which equates to 5,000 units.**

6) Life of the pool cover

Pool covers vary in thickness from 6 millimeters (mm) to 20 mm. Pool cover life varies by thickness. **From talking to industry experts, it was determined that a 12 mm thickness would provide a 7-year life and a variety of sizes and styles of covers come in that thickness**.

All these factors lead to the following net water savings estimate:

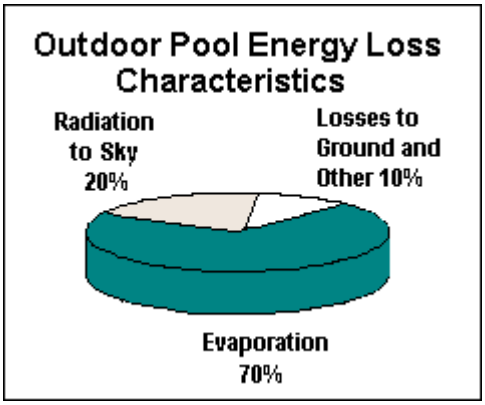
- 19,659 gallons (evaporation) x 40% (mid-level savings) = 7,863 gallons saved per pool/year
- 5,000 rebates x 7,863 gallons/pool = 39,315,000 gallons total annual project water savings or 120 acre-feet (AF) saved/year
- 120 AF x 7 year life = 840 AF

Total Project Lifetime Water Savings Pools evaporate water especially in peak summer months and it is a proven fact that pool covers reduce a significant portion of that water loss. This project will provide not only water savings but also valuable information on this untapped conservation potential for many other water utilities.

E-2 Other Project Benefits

1) <u>Energy Savings</u>

Evaporation is by far the largest source of energy loss for pools according to RSPEC. When compared to evaporation, all other loses are small. The reason evaporation has such an impact is that evaporating water requires a tremendous amounts of energy. It only takes 1 Btu to raise 1 pound of water 1 degree, but each pound of 80 degree water that evaporates takes an enormous 1048 Btu's of heat out of the pool. **Covering a pool when not in use is the single most effective means of reducing pool-heating costs; savings of 50-70% are possible (RSPEC).**



<u>Reduction of Peak Water Demand</u>

The evaporation rate for a pool is dependent on temperature, humidity and wind speed. The three hottest summer months can account for almost 80% of the total year-round evaporation (CUWCC, Splash or Sprinkle and RSPEC). By covering pools when not in use, summer peak evaporation will be greatly reduced. As MWD and its member agencies continue to develop landscaping programs to reduce summer peak demand, the Swimming Pool Cover Rebate Project compliments those efforts.

2) <u>Cost Savings via Reduced Water Use</u>

Most utilities in southern California have a tiered rate structure. The third or highest tier is usually correlated to peak outdoor water use. By installing a pool cover, homeowners will see reduction in their summer water bills, which will vary depending on the local cost of water.

3) <u>Chemical Use Reduction</u>

According to RSPEC, chemical consumption with a pool cover is reduced from 35-60%.

4) Cleaning Time Reduced

Although no empirical figures are available, RSPEC and the National Spa and Pool Institute and other pool organizations speak to the reduced cleaning time with the use of a pool cover as dirt and debris are kept out of the pool.

5) Market Transformation

Is it really market transformation or just market "awakening"? Pool covers are not a new technology, just as the 1.6 gallon pre-rinse spray valve is not a new technology. However, making the market aware that a product exists (pool cover) and purchasing it makes economic and environmental sense is a market transformation in its own right. This project will be the beginning of a change in how homeowners and water professionals look at pool water use.

Application Part F – Economic Justification: Benefits to Costs

F-1 Net Water Savings

The DWR application states that net water savings can be achieved by:

- ***"Reducing losses to the atmosphere through evaporation or transpiration"***

The Swimming Pool Cover Rebate Program does exactly that! It reduces evaporation by 30-50% (RSPEC). Net water savings for this project has been calculated with the following variables:

1) Number of existing residential swimming pools in our service area
2) Average size of an existing pool in our service area
3) Water loss or evaporation for pools in our service area
4) Water savings from pool covers
5) Number of rebates to be issued
6) Life of the pool cover

1) Number of existing swimming pools in our service area residential

There are 3.18 million single-family homes in MWD service area according to the MWD Integrated Resource Plan. Using the AWWARF Residential End Use Water Study (REUWS), a low of 15% pool penetration in City of San Diego and a high of 54.5% pool penetration in Las Virgenes Water District were reported. Using the low penetration of 15% multiplied by the 3.18 million single-family homes***, a total estimate of 477,000 single-family homes with swimming pools in MWD service has been calculated.***

2) Average size of an existing pool in our service area

Information on pool size was part of the AWWARF REUWS**. Average size for pools in MWD territory was reported as 16' x 32'.** This confirms similar information from the National Spa

and Pool Institute and the California Spa and Pool Industry Education Council. So for purposes of this application and project an average pool size of 16' x 32' is being used.

3) Water loss or evaporation for pools in our service area

Evaporation for swimming pools is 10% higher than Et according to the Department of Water Resources (Simon Eching). The California Urban Water Conservation Council (CUWCC) in their paper "Splash or Sprinkle" and the California Spa and Pool Industry Education Council have calculated similar figures, which estimate a half-inch to two inches of evaporation per week.

For this application and project the Department of Water Resource's 10% higher than Et methodology will be used to calculate pool evaporation. Monthly average Et according to the California Irrigation Management Information System (CIMIS) in Metropolitan's service area ranges from a low of 46 inches per year for coastal areas (Long Beach) to a high of 68 inches for inland areas (San Bernardino). Average Et for this application is estimated at 56 inches, which is also Et in Monrovia a central Los Angeles Basin city. **Fifty-six inches of evaporation plus 10% is approximately 19,659 gallons of evaporation per year per pool.**

4) Water savings from pool covers

The Department of Energy's "Reduce Swimming Pool Energy Cost" (RSPEC) was a program whose goal was to assist pool owners and their operators in reducing their energy costs. The program is no longer active, however, the fact sheets, studies, reports and computer software are still available. According to RSPEC, pool covers of the type this project is targeting (bubble, vinyl and vinyl insulated) reduce the amount of make-up water by 30-50%. Also, RSPEC found that pool covers reduce chemical consumption by 35-60% and heating costs by 50-70%. **For this project the conservative estimate of 40% savings is being used.**

5) Number of rebates to be issued

After talking to numerous pool supply stores and discovering that pool covers are sold at a low rate of 2-4 covers per week**. For this project it was calculated that with that low rate of covers sold a reasonable target of 5,000 units would be appropriate.**

6) Life of the pool cover

Pool covers vary in thickness from 6mm to 20mm. Pool cover life varies by thickness. From talking to industry experts, it was determined that a 12mm thickness would provide a 7-year life and a variety of sizes and styles of covers come in that thickness.

All these factors lead to the following net water savings estimate:

- 19,659 gallons (evaporation) x 40% (mid-level savings) = 7,863 gallons saved per pool/year

- 5,000 rebates x 7,863 gallons/pool = 39,315,000 gallons total annual project water savings or 120 acre-feet (AF) saved/year

- 120 AF x 7 year life = **840 AF Total Project Lifetime Water Savings**

Enter this amount in Table 4.

F-2 Project Budget and Budget Justification

Project Budget
Prepare a detailed project budget that includes the following items, including a description and justification for each item in the budget.

Total Budget

	Year 1	**Year 2**	**Year 3**	**Total**
Number of Rebates	1,250	1,750	2,000	5,000

e. Equipment - Rebates	$ 93,750	$ 131,250	$ 150,000	$375,000
g. Administration/Marketing	$18,750	$26,250	$30,000	$75,000
o. Other – Monitoring and Assessment	$ 1,250	$ 1,875	$ 1,875	$ 5,000
Total	***$113,750.00***	***$159,375.00***	***$181,875.00***	***$455,000.00***

Listed below are the costs broken out by year and by each funding agency.

Year 1

	DWR	**MWD/Member Agencies**	**Total**
e. Equipment – Rebates	$ 68,750	$ 25,000	$ 93,750
g. AdministrationMarketing	$ 0	$18,750	$ 18,750
o. Other – Monitoring and Assessment	$ 0	$ 1,250	$ 1,250
Total	***$68,750.00***	***$45,000.00***	***$113,750.00***

Year 2

	DWR	**MWD/Member Agencies**	**Total**
e. Equipment - Rebates	$ 96,250	$ 35,000	$ 131,250
g. Administration/Marketing	$ 0	$ 26,250	$ 26,250
o. Other – Monitoring and Assessment	$ 0	$ 1,875	$ 1,875
Total	***$96,250.00***	***$63,125.00***	***$159,375.00***

Year 3

	DWR	**MWD/Member Agencies**	**Total**
e. Equipment - Rebates	$ 110,000	$ 40,000	$ 150,000
g. Administration/Marketing	$ 0	$ 30,000	$ 30,000
o. Other – Monitoring and Assessment	$ 0	$ 1,875	$ 1,875
Total	***$110,000.00***	***$71,875.00***	***$181,875.00***

a) Land Purchase/Easement
b) Planning/Design/Engineering
c) Materials/Installation
d) Structures
e) Equipment Purchases/Rentals
f) Environmental Mitigation/Enhancement
g) Construction Administration/Overhead
h) Legal & License Fees
i) Other
j) Contingency Costs up to 15 percent of budget
k) TOTAL

Justification for Budget:

- **Equipment – Rebate:** The rebate being offered is $75 per pool cover ($50 from DWR and $25 from MWD). It is estimated that a total of 5,000 rebates will be issued over a three-year period. The project is expected to increase in volume every year. Marketing, industry relationships, and other factors will generate greater project participation in each successive year. It is estimated that of the total 5,000 rebates, 1,250 (25%) would be done in the first year, 1,750 (35%) in the second year, and 2,000 (40%) in the third year.

- **Administration:** Metropolitan Administration: Project management will occur on two levels. At the Metropolitan tree top level and at the ground level of the member and retail water agencies. Administration will encompass designing and printing marketing materials, designing and printing applications, processing rebates, amending or writing contracts with member agencies, data inputting and invoicing in Metropolitans' billing system, working with national pool supply stores, project reporting to DWR and member agencies and other project management requirements. Point of purchase displays, brochures, and fact sheets will be designed and printed by Metropolitan to be distributed to participating member agencies. Advertising in pool trade journals and shows will also be undertaken. For this application, Metropolitan and member agency administration is estimated at $15 per rebate.

- **Other – Monitoring and Assessment:** A cost of $25 per site for on-site inspections for 200 inspections was estimated. These will be spaced out over the three-year life of the project.

F-3 Economic Efficiency

The Alternative Water Cost of Foregone Conservation in the Metropolitan Service Area

Summary
The Metropolitan Water District of Southern California is a wholesaler of water to its 26 member agencies. As part of its ongoing support of locally developed water and conservation, Metropolitan offers incentives of $250 per acre-foot of locally developed recycled, recovered, or desalted water and $154 per acre-foot of conserved water. Although these incentives appear to be unequal, they are equivalent when accounting for Metropolitan's cost of capital and the fact that conservation is typically funded through up-front payments and recycled, recovered, and desalted seawater is typically funded on production.

Metropolitan's $250 per acre-foot incentive is based on avoided cost analyses performed during the development of Southern California's 1996 Integrated Water Resources Plan. However, the total value of conservation funded through Metropolitan's programs transcends Metropolitan's direct avoided costs and incentives. Metropolitan's member agencies are the host of most all of Metropolitan's conservation programs and they also enjoy avoided cost of Metropolitan's water rate or $435 per acre-foot. This rate is often sited by the member agencies as their least cost marginal supply of water.

Adding the rate and incentive together, and accounting for the member agencies higher discount rate, the alternative water cost of foregone conservation in Southern California is approximately $700 per acre-foot. This value also approximates the marginal cost of water recycling in Southern California, which Metropolitan uniformly uses as its alternative regional cost of alternative water supplies. Although this estimate accounts for avoided infrastructure costs at Metropolitan, it does not include the value of avoided infrastructure development for the member agency or retailer and therefore this cost could be higher.

Detail

1. Metropolitan Incentives
    a. Equivalence of MWD Incentives

Year	Acre-feet	Recycling Payment	Conservation Payment	PV($250)	PV($154)
1	1	$ 250.00	$3,080.00	$ 250.00	$3,080.00
2	1	$ 250.00	$ -	$ 235.85	$ -
3	1	$ 250.00	$ -	$ 222.50	$ -
4	1	$ 250.00	$ -	$ 209.90	$ -
5	1	$ 250.00	$ -	$ 198.02	$ -
6	1	$ 250.00	$ -	$ 186.81	$ -
7	1	$ 250.00	$ -	$ 176.24	$ -
8	1	$ 250.00	$ -	$ 166.26	$ -
9	1	$ 250.00	$ -	$ 156.85	$ -
10	1	$ 250.00	$ -	$ 147.97	$ -
11	1	$ 250.00	$ -	$ 139.60	$ -
12	1	$ 250.00	$ -	$ 131.70	$ -
13	1	$ 250.00	$ -	$ 124.24	$ -
14	1	$ 250.00	$ -	$ 117.21	$ -
15	1	$ 250.00	$ -	$ 110.58	$ -
16	1	$ 250.00	$ -	$ 104.32	$ -
17	1	$ 250.00	$ -	$ 98.41	$ -
18	1	$ 250.00	$ -	$ 92.84	$ -
19	1	$ 250.00	$ -	$ 87.59	$ -
20	1	$ 250.00	$ -	$ 82.63	$ -
Total	20	$5,000.00	$3,080.00	$3,039.53	$3,080.00

Preceding is a 20-year example of payment steams for projects, such as conservation, that receive funding at $154 per acre-foot up-front compared to projects, such as recycling, that receive up to $250 per acre-foot on production. Column 1 shows the years of the compared projects 1 through 20. Column 2 shows that both projects are produce 1 acre-foot per year. If the project is water recycling, it can receive up to $250 per acre-foot produced in the year of production. Column 3 shows this payment. Alternatively, if the project is for conservation, it may receive $154 per acre-foot of projected production over an agreed life of the program. In this case, column 4 shows the up-front payment of $3,080 ($154 per acre-foot * 1 acre-foot per year * 20 Years) in year one of the program. Columns 5 and 6 show the comparable present value of payments, discounted at 6% (the typical long-term discount rate used by Metropolitan since 1996), under the two programs. This simple example yields results within 1.5% of each other. Under certain conditions the $154 per acre-foot yields more on a present value basis and sometimes this result is reversed, however this example is not atypical.

    b. Added Value to Member Agencies with Higher Discount Rates

Typically, the discount rate for Metropolitan's member agencies is higher than Metropolitan's own discount rate. As a result, the member agencies see greater value

in up-front payments for programs. If, instead of a 6% discount rate, the analysis used a higher discount rate of 7%, then the value of the up-front payment to member agencies climbs to a value of over $270 per acre-foot. This is a closer approximation of the value derived by member agencies from the Metropolitan conservation incentive program.

2. Metropolitan's Rate Structure and Member Agency Avoided Cost

Metropolitan charges unbundled rates for it water services, however adding its component part will derive an avoided aggregate rate. This aggregate rate in currently $435 per acre-foot for delivered treated water and is forecasted to keep pace with the consumer price index over the next ten years. Member agencies regularly use this price signal as their alternative cost of water. They also often use the cost of recycled water at approximately $700 per acre-foot and member agencies may soon use upwards of that number, as they seriously consider the introduction of seawater desalination into Southern California's water resource plans.

3. Total Avoided Cost

Using the member agency value of recycling ($700 per acre-foot) or the aggregate of Metropolitan's conservation incentives ($250-$270 per acre-foot) and avoided water rate (currently $435 per acre-foot), it is clear that the value of conservation in the Southern California region approximates $700 per acre-foot. This estimate does not account for potential member agency infrastructure savings or the forecasted increases in Metropolitan water rates, which if estimated could make these estimates higher.

Appendix- Benefit/Cost Analysis Tables

Table 1: Capital Costs

	Capital Cost Category *(a)*	Cost *(b)*	Contingency Percent *(c)*	Contingency $ *(d)* *(bxc)*	Subtotal *(e)* *(b+d)*
(a)	Land Purchase/Easement	NA			
(b)	Planning/Design/Engineering	NA			
(c)	Materials/Installation	NA			
(d)	Structures	NA			
(e)	Equipment Purchases/Rentals	$375,000			
(f)	Environmental Mitigation/Enhancement	NA			
(g)	Construction/Administration/Overhead	$75,000			
(h)	Project Legal/License Fees	NA			
(i)	Other (Inspections)	$5,000			
(j)	Total **(1)** (a + ... + i)	$455,000			
(k)	Capital Recovery Factor: use Table 6	.1791			
(l)	Annual Capital Costs (j x k) (7yrs)	$81,490			

(1) Costs must match Project Budget prepared in Section F-2.

Table 2: Annual Operations and Maintenance Costs

Administration *(a)*	Operations *(b)*	Maintenance *(c)*	Other *(d)*	Total *(e)*
NA	NA	NA	NA	NA

Table 3: Total Annual Costs

Annual Capital Costs (1) *(a)*	Annual O&M Costs (2) *(b)*	Total Annual Costs *(c)* *(a+b)*
$81,490	$0	$81,490

(1) From Table 1 line (l)
(2) From Table 2 Total, column *(e)*

Table 4: Water Supply Benefits

Net water savings (acre-feet/year) 120 AF/YR

4a. Avoided Costs of Current Supply Sources

Sources of Supply *(a)*	Cost of Water ($/AF) *(b)*	Annual Displaced Supply (AF) *(c)*	Annual Avoided Costs ($) *(d)* *(b x c)*
Colorado River, Bay Delta: See F-3, Avoided Cost of Conserved Water	**$700/AF**	**120 AF/YR**	**$84,000**
Total			

4b. Alternative Costs of Future Supply Sources

Future Supply Sources *(a)*	Total Capital Costs ($) *(b)*	Capital Recovery Factor (1) *(c)*	Annual Capital Costs ($) *(d)* *(b x c)*	Annual O&M Costs ($) *(e)*	Total Annual Avoided Costs ($) *(f)* *(d + e)*
NA					
Total					

(1) 6% discount rate; Use Table 6- Capital Recovery Factor

4c. Water Supplier Revenue (Vendibility)

Parties Purchasing Project Supplies *(a)*	**Amount of Water to be Sold** *(b)*	**Selling Price ($/AF)** *(c)*	**Expected Frequency of Sales (%) (1)** *(d)*	**Expected Selling Price ($/AF)** *(e)* *(c x d)*	**"Option" Fee ($/AF) (2)** *(f)*	**Total Selling Price ($/AF)** *(g)* *(e + f)*	**Annual Expected Water Sale Revenue ($)** *(h)* *(b x g)*
NA							
Total							

(1) During the analysis period, what percentage of years are water sales expected to occur? For example, if water will only be sold half of the years, enter 50% (0.5).
(2) "Option" fees are paid by a contracting agency to a selling agency to maintain the right of the contracting agency to buy water whenever needed. Although the water may not be purchased every year, the fee is usually paid every year.

4d: Total Water Supply Benefits

(a) Annual Avoided Cost of Current Supply Sources ($) from 4a, column (*d*)	$84,000
(b) Annual Avoided Cost of Alternative Future Supply Sources ($) from 4b, column (*f*)	$0
(c) Annual Expected Water Sale Revenue ($) from 4c, column (*h*)	$0
(d) Total Net Annual Water Supply Benefits ($) (a + b + c)	$84,000

Table 5: Benefit/Cost Ratio

Project Benefits ($) (1)	**$84,000**
Project Costs ($) (2)	**$81,490**
Benefit/Cost Ratio	**1.03**

(1) From Tables 4d, row (d): Total Annual Water Supply Benefits
(2) From Table 3, column (*c)* : Total Annual Costs

Table 6: Capital Recovery Factor

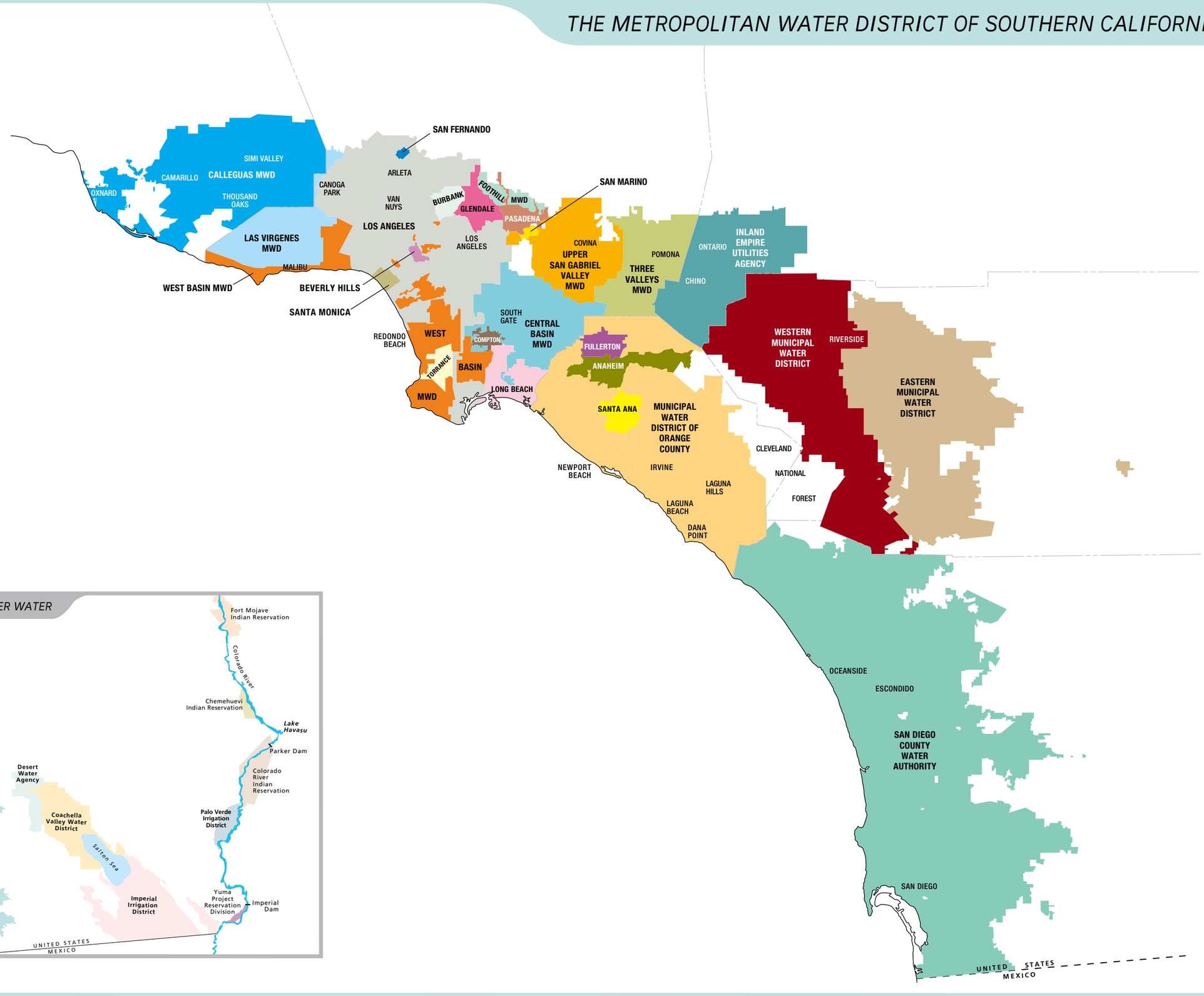
(Use to obtain factor for Table 1, Line k or Table 4b, Column *(c)*

Life of Project (in years)	Capital Recovery Factor
7	0.1791
8	0.1610
9	0.1470
10	0.1359
11	0.1268
12	0.1193
13	0.1130
14	0.1076
15	0.1030
16	0.0990
17	0.0954
18	0.0924
19	0.0896
20	0.0872
21	0.0850
22	0.0830
23	0.0813
24	0.0797
25	0.0782
26	0.0769
27	0.0757
28	0.0746
29	0.0736
30	0.0726
31	0.0718
32	0.0710
33	0.0703
34	0.0696
35	0.0690
36	0.0684
37	0.0679
38	0.0674
39	0.0669
40	0.0665
41	0.0661
42	0.0657
43	0.0653
44	0.0650
45	0.0647
46	0.0644
47	0.0641
48	0.0639
49	0.0637
50	0.0634

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

N

METROPOLITAN'S MEMBER AGENCIES



CALIFORNIA ENTITIES USING COLORADO RIVER WATER

The mission of the
Metropolitan Water District
of Southern California
is to provide its service area with
adequate and reliable supplies
of high-quality water to meet
present and future needs in an
environmentally and
economically responsible way.

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

POST OFFICE BOX 54153
LOS ANGELES, CA 90054-0153

www.mwdH2O.com

EA October 2001

Metropolitan's Member Agencies and Communities Served

Anaheim
Beverly Hills
Burbank
Compton
Fullerton
Glendale
Long Beach
Los Angeles
Pasadena
San Fernando
San Marino
Santa Ana
Santa Monica
Torrance

Calleguas Municipal Water District
- Bell Canyon
- Camarillo
- Channel Islands Beach
- Lake Sherwood
- Las Posas Estates
- Moorpark
- Oak Park
- Oxnard
- Pleasant Valley Heights
- Point Mugu
- Port Hueneme
- Simi Valley
- Santa Rosa Valley
- Somis
- Thousand Oaks

Central Basin Municipal Water District
- Artesia
- Bell
- Bellflower
- Bell Gardens
- Cerritos
- Commerce
- Cudahy
- Downey
- East Compton
- East La Mirada
- East Los Angeles
- Florence
- Graham
- Hawaiian Gardens
- Hollydale
- Huntington Park
- La Habra Heights
- Lakewood
- La Mirada
- Los Nietos
- Lynwood
- Maywood
- Montebello
- Norwalk
- Paramount
- Pico Rivera
- Santa Fe Springs
- Signal Hill
- South Gate
- South Whittier
- Vernon
- Walnut Park
- West Compton
- West Whittier
- Whittier
- Willowbrook

Eastern Municipal Water District
- Canyon Lake
- Good Hope
- Hemet
- Homeland
- Juniper Flats
- Lakeview-Nuevo
- Mead Valley
- Moreno Valley
- Murrieta
- Murrieta Hot Springs
- Perris
- Quail Valley
- Romoland
- San Jacinto
- Sun City
- Temecula
- Valle Vista
- Winchester

Foothill Municipal Water District
- Altadena
- La Cañada Flintridge
- La Crescenta
- Montrose

Inland Empire Utilities Agency
- Chino
- Chino Hills
- Fontana
- Montclair
- Ontario
- Rancho Cucamonga

Las Virgenes Municipal Water District
- Agoura
- Agoura Hills
- Calabasas
- Chatsworth
- Lake Manor
- Hidden Hills
- Malibu Lake
- Monte Nido
- Topanga
- Westlake Village

Municipal Water District of Orange County
- Aliso Viejo
- Brea
- Buena Park
- Capistrano Beach
- Corona del Mar
- Costa Mesa
- Coto de Caza
- Cypress
- Dana Point
- El Toro
- Fountain Valley
- Garden Grove
- Huntington Beach
- Irvine
- Laguna Beach
- Laguna Hills
- Laguna Niguel
- La Habra
- Lake Forest
- La Palma
- Leisure World
- Los Alamitos
- Mission Viejo
- Monarch Beach
- Newport Beach
- Orange
- Placentia
- Rancho Santa Margarita
- Rossmoor
- San Clemente
- San Juan Capistrano
- Seal Beach
- Stanton
- Tustin
- Tustin Foothills
- Villa Park
- Westminster
- Yorba Linda

San Diego County Water Authority
- Alpine
- Bonita
- Bonsall
- Camp Pendleton
- Cardiff-By-The-Sea
- Carlsbad
- Casa De Oro
- Castle Park
- Chula Vista
- Crest
- Del Mar
- De Luz
- El Cajon
- Encinitas
- Escondido
- Fallbrook
- Jamul
- Lakeside
- La Mesa
- Lemon Grove
- Leucadia
- Mount Helix
- National City
- Oceanside
- Otay
- Pauma Valley
- Poway
- Rainbow
- Ramona
- Rancho Santa Fe
- San Diego
- San Marcos
- Santee
- San Ysidro
- Solana Beach
- Spring Valley
- Valley Center
- Vista

Three Valleys Municipal Water District
- Azusa
- Charter Oak
- Claremont
- Covina
- Diamond Bar
- Glendora
- Industry
- La Puente
- La Verne
- Pomona
- Rowland Heights
- San Dimas
- Walnut
- West Covina

Upper San Gabriel Valley Municipal Water District
- Arcadia
- Baldwin Park
- Bassett
- Bradbury
- Covina
- Duarte
- El Monte
- Glendora
- Hacienda Heights
- Industry
- Irwindale
- La Puente
- Monrovia
- Montebello
- Pasadena
- Rosemead
- San Gabriel
- South El Monte
- South Pasadena
- South San Gabriel
- Temple City
- Valinda
- West Covina
- Whittier

West Basin Municipal Water District
- Alondra Park
- Angeles Mesa
- Carson
- Culver City
- Del Aire
- El Nido-Clifton
- El Porto
- El Segundo
- Gardena
- Hawthorne
- Hermosa Beach
- Howard
- Inglewood
- Ladera Heights
- Lawndale
- Lennox
- Lomita
- Malibu
- Manhattan Beach
- Marina Del Rey
- Miraleste
- Morningside
- Palos Verdes Estates
- Point Dume
- Portuguese Bend
- Rancho Dominguez
- Rancho Palos Verdes
- Redondo Beach
- Rolling Hills
- Ross-Sexton
- Topanga Canyon
- Parts of Topanga Park
- Victor
- View Park
- West Athens
- West Carson
- West Hollywood
- Westmont
- Windsor Hills
- Wiseburn

Western Municipal Water District of Riverside County
- Bedford Heights
- Canyon Lakes
- Corona
- Eagle Valley
- El Sobrante
- Green River
- Lake Elsinore
- Lake Mathews
- March Air Force Base
- Norco
- Orangecrest
- Rancho California
- Riverside
- Temecula
- Temescal
- Woodcrest